

B65D 83



(11)

PATENT SPECIFICATION ⁽²¹⁾ 13,094/

Class ⁽⁵²⁾ 48.5; 57.2.

Int. Cl. ⁽⁵¹⁾ B65h.

Application Number ⁽²¹⁾ 13094/70.
Lodged ⁽²²⁾ 26th March, 1969.
(Accompanied by a
Provisional Specification).

Complete Specification
entitled ⁽⁵⁴⁾ DISPENSER CARTON.

Doc

Lodged ⁽²³⁾ 25th March, 1970.
Accepted ⁽⁴⁴⁾ Lapsed under Section 47D(1).
Published ⁽⁴¹⁾ 30th September, 1971.

Convention Priority ⁽³⁰⁾

° 265 283

Applicant ⁽⁷¹⁾ W.C. PENFOLD & CO. PTY. LIMITED.

Actual Inventor ⁽⁷²⁾ ALEXANDER BORIS STAHEYEFF.

Related Art ⁽⁵⁶⁾

The following statement is a full description of this invention, including the best method of performing it known to us

14362/73-L

L118-69-2D-14P.C.

F. D. Atkinson, Government Printer, Canberra

This invention relates to cartons of the kind in which rolls of wrapping material are sold, and in which provision is made for the user to tear off required lengths of the roll by use of a serrated tear-blade provided on the carton along a longitudinal edge or corner thereof. The material sold in such cartons (waxed paper, metal foil, plastics film, and the like) being only a wrapping material, must not be expensive; and hence it is all the more necessary for the cartons to be as cheap as possible.

A major expense in production of the prior art cartons, resided in the provision of the tear-blade. In some cases it was made of metal; in others of plastics material but in both instances the fact of having to make it separately and to fix it on the carton involved expense which was high in proportion to the value of the finished cartons as a whole.

The main object of the present invention is to reduce the costs of production of cartons of the kind indicated, by eliminating the need for a separately formed tear-blade of metal, plastics or other material alien to that out of which the carton is made. In short, the serrated tear-blade, according hereto, is made out of the cardboard of which the carton is made, and may be formed as a step in the more-or-less conventional production of the carton blanks.

Cartons of the kind in question usually have a trough-like body or box portion and a lid which is

integrally hinged along one longitudinal top edge of the body. The free longitudinal edge of the lid usually has a flap on it which may be tucked downwardly into the body, behind the front wall the roof, when the carton is closed.

By this invention the serrated tear-blade is formed along the top edge of the mentioned front wall out of the cardboard or like material of which the carton is made.

Experiments which resulted in the present invention showed that simply to give the front wall of an ordinary carton a serrated upper edge is not effective for two reasons; first, because the use of a single layer of cardboard as the front wall does not endow that wall with sufficient stiffness or rigidity to withstand the loads imposed on it by repeated tearings; and, second, the serration points are not sharp enough, or do not maintain their sharpness long enough.

In this last connection, it is well known to cut serrations in cardboard by use of an ordinary zig-zag rule included in the cutter assembly of a conventional cutter and creaser machine in which the carton blanks are, or may be, made. It is also known that it is a matter of some difficulty to provide a serrated edge on a piece of cardboard with sharp points when the pitch of the serrations is relatively small owing to the greater difficulty of giving a small-pitch zig-zag rule clean sharp corners. With a large pitch rule this difficulty

13,094 /70
is greatly ameliorated.

In the production of tear-blades for the tearing off of such things as plastic films and the like a suitable fine pitch for the blade serrations is about 14 to 16 points to the inch, and at this pitch there is some difficulty in getting sufficient sharpness of the serration points with an ordinary zig-zag rule. Thus, it is an important aspect of the present invention that a rule of half the required pitch (that is a rule of from 7 to 8 serration points to the inch) may be employed and yet provide a tear-blade having of from 14 to 16 points to the inch. This is achieved (by the present invention) by making the blade as a two-ply member in which each of the plies has what may be called coarse pitch serration points, but the points of one ply are staggered relative to those of the other so that the serration points of either ply are disposed between the points of the other.

Thus, the invention consists in a dispenser carton which includes a tear-blade consisting of a two-ply, carton-body front-wall margin whereof the upper edges of both plies are serrated and so arranged that the serration points of one of the plies lie between those of the other.

According to preferred embodiments of the above described invention a dispenser carton is provided of the kind comprising a trough like body, a lid hinged to the top of the back wall of the body and a tear blade

extending along the top of the front wall of said body wherein, in accordance with the invention, said blade consists of an upper marginal portion of said front wall, whereof the upper edge is serrated, and a backing layer of the same material as said front wall whereof the upper edge is also serrated, said backing layer being secured to said marginal portion so that the serration points of said backing layer are between those of said marginal portion.

By way of example, an embodiment of the above described invention is described hereinafter with reference to the accompanying drawings.

Figure 1 is a view of a carton blank.

Figure 2 is a perspective view of a carton formed from the blank of Figure 1.

Figure 3 is a view similar to Figure 2, showing the carton of Figure 2 after it has been opened and made ready for use.

Figure 4 is an enlarged view of the portion of the carton blank of Figure 1 within the enclosure marked 4 in that figure.

Figure 5 is a view of the portion of the carton of Figure 2 formed from the blank portion of Figure 4 drawn to the same scale as Figure 4.

Figure 6 is a sectional view taken on line 6-6 of Figure 3 to the same scale as Figures 4 and 5.

The illustrated embodiment of the invention

1309470
may be formed from the carton blank of Figure 1 which may itself be formed from a single piece of cardboard by a conventional cutter and creaser machine equipped with suitable cutting and folding rules.

In Figures 2 to 6 the various parts of the carton bear the same reference numerals as those of the carton blank portions from which they are formed.

The blank of Figure 1 comprises three longitudinal body panels, namely a front wall panel 7, a floor panel 8 and a back wall panel 9, which may be folded up to constitute the corresponding walls and floor of a trough like body 13.

The body panels 7, 8 and 9 are provided respectively with end wall flaps 10, 11 and 12, which are adhered together in the finished carton.

A lid panel 14 extends along one edge of the rear wall panel 9 and is itself furnished with a closure flap 15, comprising a tuck in flap 16, a tear strip 17 and an anchorage strip 18.

In the finished carton as originally made the anchorage strip 18 is adhered to the front wall panel 7.

When the carton is to be opened the tear strip 17 may be torn away and thereafter the tuck-in flap 16 (and end flaps 17 on the lid panel 14) may be tucked into the open mouth of the trough like body 13 (as shown in Figures 3 and 6).

A backing layer 20 is provided, which in the

blank comprises an edge flap integral with the front wall panel 7.

The backing layer 20 preferably extends not only for the full length of the front wall panel 7 but also for the extra length of the end wall flaps 10 extending from the ends thereof.

The backing layer 20 is eventually folded over so that it lies against what becomes the inner face of the carton front wall, and is eventually adhered thereto by any suitable adhesive (such as a polyvinyl acetate emulsion).

Before the backing layer 20 is folded over and adhered to the carton front wall panel the line in which they are joined longitudinally is slit from end to end by use of a zig-zag rule mounted in the blanking machine. As previously explained, this zig-zag rule has its serration pitch double that of the required serration point pitch in the finished tear-blade. When the backing layer 20 is folded over and adhered to the front wall panel 7 the fold is effected along the median line of the zig-zag slit so that when the backing layer is folded back against the inside of the front wall panel, serration points 21 on the backing layer and those 22 on the front wall panel 7 both point upwardly, with the points of one in staggered relation to those of the other, thus giving a tear-blade pitch fineness equal to twice the pitch of the zig-zag rule.

13 094 70

It will be appreciated that the tear-blade serration points 21 and 22, being only of cardboard, may be susceptible to bending or becoming blunt after repeated use. Therefore, it is desirable for the serration points 21 and 22 to be toughened or stiffened and this may be done by coating the finally contacting faces of the backing layer 20 and the front wall panel 7, along the line of the zig-zag cut, with a stiffening agent, such as, for example an epoxy or polyester resin.

Such a stiffening resin may be applied as a stripe 23 (Figure 4) running longitudinally of the area to be pierced by the zig-zag rule. This stripe need be no wider than the full width of the zig-zag slit cut by the rule and the stiffening agent may be applied on a conventional glueing machine by use of an ordinary glueing wheel.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A dispenser carton which includes a tear blade consisting of a two-ply, carton-body, front-wall margin whereof the upper edge of both plies are serrated and so arranged that the serration points of one of the plies lie respectively between those of the other.

2. A dispenser carton according to Claim 1, wherein said serration points are stiffened by a stiffening agent.

3. A dispenser carton substantially described herein with reference to the accompanying drawings.

4. A method of making a carton according to Claim 1, comprising the step of cutting a carton blank to form a zig-zag slit extending longitudinally of the blank and then folding the blank about the median line of said zig-zag slit to form said two-ply, carton-body front-wall margin.

5. A method according to Claim 4, wherein a stripe of stiffening agent is applied to the carton blank extending longitudinally of said zig-zag slit.

DATED this twenty-fourth day of March, 1970.

W.C. PENFOLD & CO. PTY. LIMITED

Attorney: ROBERT G. SHELSTON
Fellow Institute of Patent Attorneys of Australia
of EDWD. WATERS & SONS
SYDNEY.



13,094 70

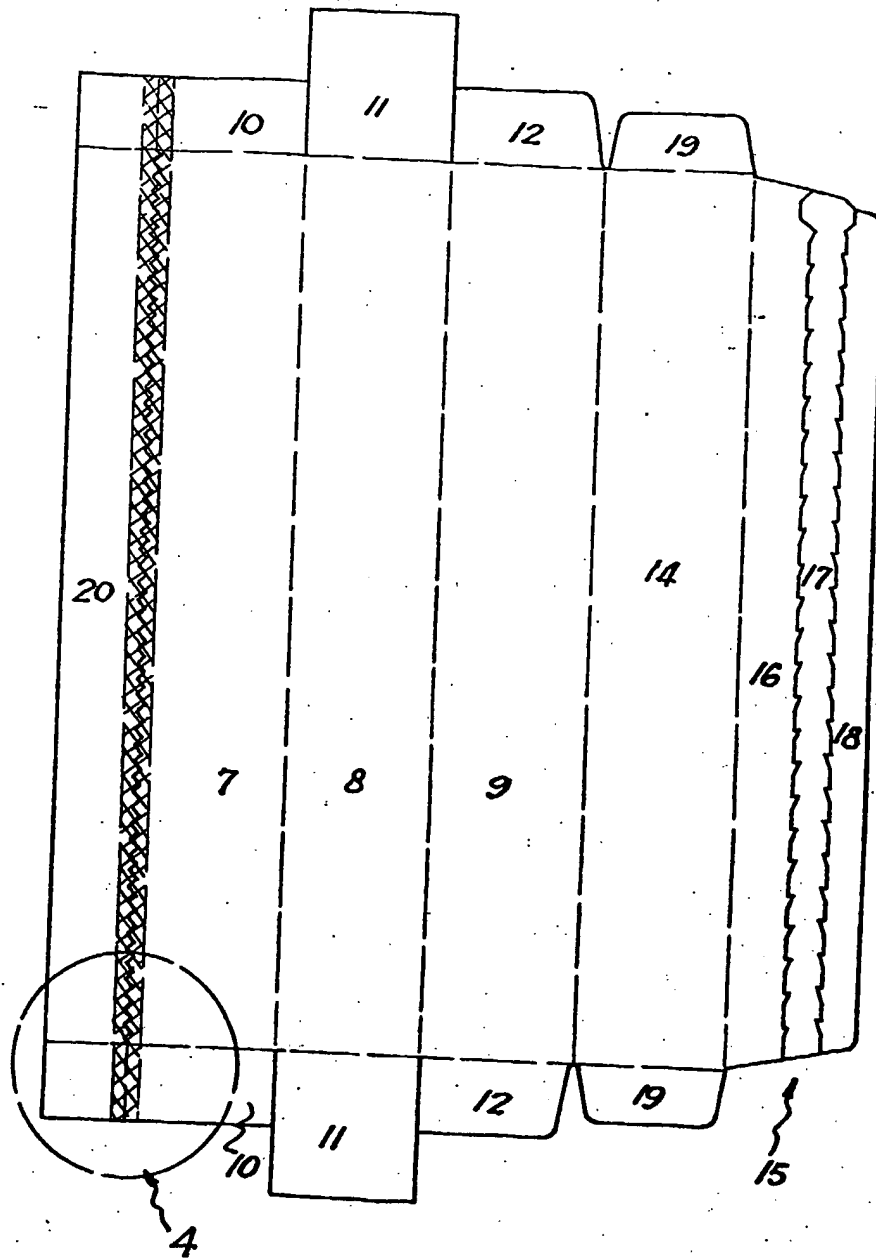


Fig. 1.

Fig. 2.

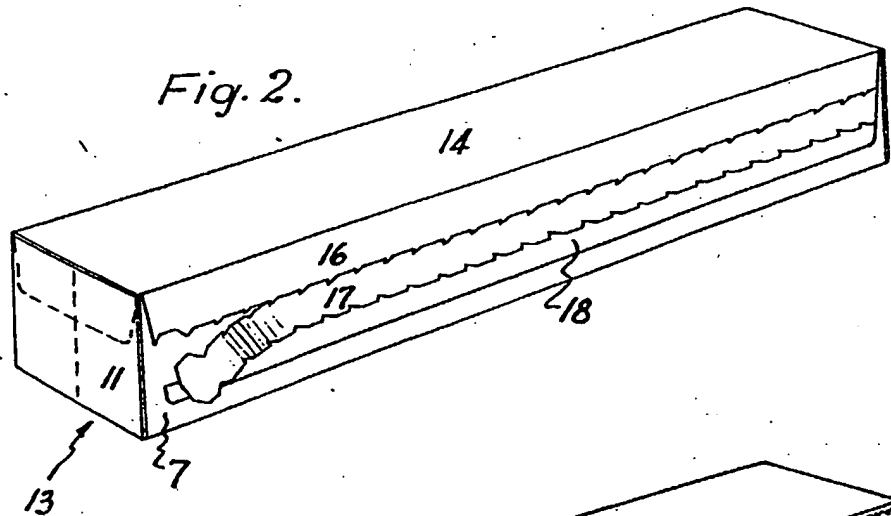


Fig. 3.

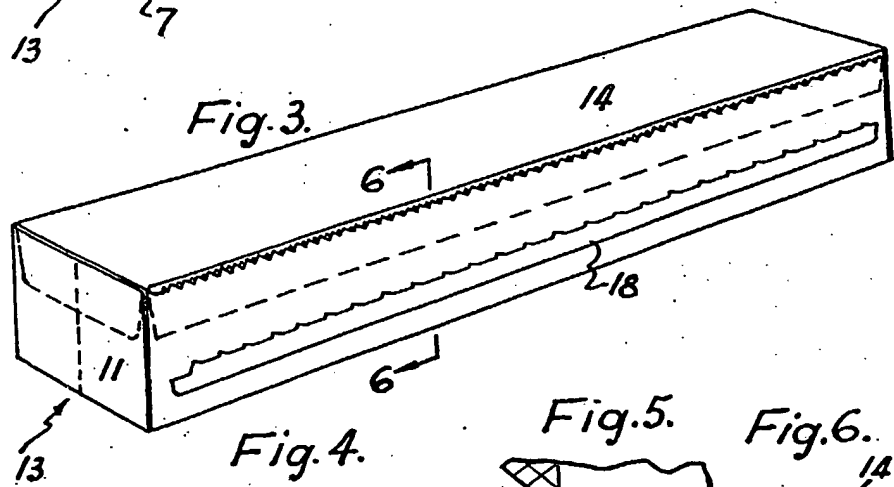


Fig. 4.

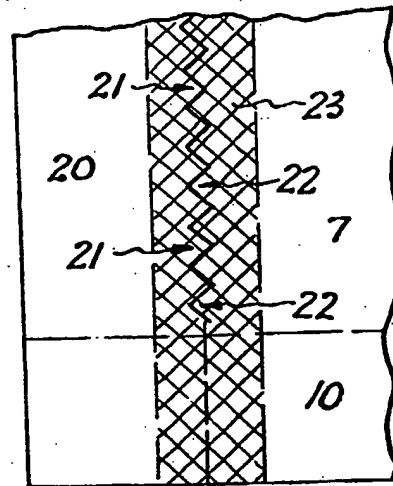


Fig. 5.

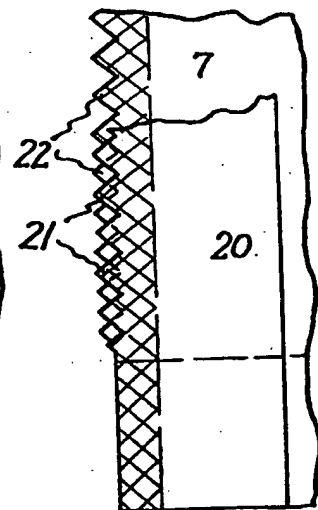


Fig. 6.

